EI2490 Seminar Course in Electrotechnical Design and High Voltage Equipment 1.5 credits

Seminariekurs i elektroteknisk konstruktion och högspänningsteknik

This is a translation of the Swedish, legally binding, course syllabus.

If the course is discontinued, students may request to be examined during the following two academic years

Establishment

The official course syllabus is valid from the spring semester 2024 in accordance with the decision from the faculty board: J-2024-1404.Decision date: 2024-06-11

Decision to discontinue this course

The course will be discontinued at the end of the spring semester 2024 according to faculty board decision: J-2024-1404.Decision date: 2024-06-11The course was given for the last time in the spring semester 2024. The last opportunity to take an examination in the course is given in the spring semester 2026.Students who wish to complete the course shall contact the examiner.

Grading scale

P, F

Education cycle

Second cycle

Main field of study

Electrical Engineering

Specific prerequisites

TELPM, TIETM

Language of instruction

The language of instruction is specified in the course offering information in the course catalogue.

Intended learning outcomes

After completing the seminar course the student should be able to

Describe the areas of knowledge that is necessary understand for designing high voltage and high power electrical equipment

Show a good knowledge about the state of the art of research and industrial development trends in the area of high voltage and high power equipment

Formulate multiphysical equations in a general form that needs to be solved in designs for high voltage and high power equipment

Course contents

This seminar course gives lectures from a broad range of high voltage and high power electrotechnical applications.

Each seminar will describe the key design aspects and recent development trends for a particular power components such as circuit breakers, transformes, cables, measuring equipment etc.

The main theme of the seminars is an overview of the multiphysical aspects that must be met for each particluar equipment of component. Such aspects could be related to electrical, thermal, mechanical, magnetical dimensioning of the equipment. Seminars are given by lecturers from both the research area and the industry.

Examination

- ANN1 - Assignments, 0.5 credits, grading scale: P, F
- SEM1 - Seminar Series, 1.0 credits, grading scale: A, B, C, D, E, FX, F

Based on recommendation from KTH's coordinator for disabilities, the examiner will decide how to adapt an examination for students with documented disability.

The examiner may apply another examination format when re-examining individual students.

Participation in 8 out of 12 seminars are require.

One approved assignment.

Other requirements for final grade

Participation in 8 out of 12 seminars are require.

One approved assignment.

Ethical approach

- All members of a group are responsible for the group's work.
- In any assessment, every student shall honestly disclose any help received and sources used.
- In an oral assessment, every student shall be able to present and answer questions about the entire assignment and solution.